

Auditory Processing Disorder: Classroom Acoustic Modifications

(Adapted from the Florida Department of Education, Technical Assistance Paper 10967)

Noise and reverberation in the classroom can significantly reduce how well students understand spoken language. For children with APD, these challenges are even greater. By reducing background noise and reverberation, teachers create a more pleasant and effective learning environment for all students—and a better teaching experience too.

External Modifications

- Landscaping (trees, hedges, shrubs, or earth mounds) to block outdoor noise
 - Carpet exterior corridors
 - Use exterior detached walls surrounding classrooms to reduce noise transfer
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Ceilings

- Install acoustical ceiling tiles to absorb middle- and high-frequency noise
 - Keep ceiling heights below 12 feet to minimize echo
 - Use banners, student work, hanging plants, or tapestries for extra absorption
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Floors

- Carpet with padding is most effective for reducing reverberation and furniture noise
 - Extend carpet to the base of walls when possible
 - Use rugs, rubberized flooring, or resilient tile for hard surfaces
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Windows

- Use drapes, blinds, or shades to soften reflective surfaces
- Install double-pane windows to reduce outside noise
- Hang student work or art on windows where coverings aren't possible
- Keep windows closed during class

Walls and Doors

- Cover with cork boards, felt boards, fabric panels, or student work to absorb sound
 - Use solid core doors without windows for best sound isolation
 - Add weather stripping to seal seams and reduce noise leakage
 - Avoid vented doors
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Seating and Furniture Arrangement

- Stagger desks/tables to create natural sound barriers
 - Add felt or rubber tips to chair and desk legs to reduce scraping noises
 - Position instruction away from noise sources
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Ventilation

- Use acoustical duct lining to quiet HVAC noise
 - Install duct silencers to reduce sound transfer between classrooms
 - Schedule instruction away from HVAC noise when possible
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Lighting

- Avoid fluorescent lighting systems when possible (they emit high-frequency hums)
 - Replace fluorescent ballasts regularly if use is unavoidable
 - Place lighting above acoustical tiles to minimize noise
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Special Purpose Areas

- Position mobile bulletin boards or bookcases at angles to reduce echo
- Use furniture to block noise sources like computers, bathrooms, or centers
- Cover manipulative tables with fabric or plastic to reduce surface noise
- Line study carrels with acoustic tiles to dampen equipment noise